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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/607,109

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3632

7590

08/27/2004

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EXAMINER

JAGAN, MIRELLYS

ART UNIT

PAPER NUMBER

2859

DATE MAILED: 08/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/607,109	Applicant(s) HOLLANDER ET AL.	
	Examiner Mirellys Jagan	Art Unit 2859	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 74-82 and 84-86 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 74-82 and 84-86 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Terminal Disclaimer

1. The terminal disclaimer filed on 6/24/04 disclaiming the terminal portion of any patent granted on this application, which would extend beyond the expiration date of U.S. Patents 5,368,392, 5,823,679, 5,727,880, and 6,341,891, has been reviewed and is NOT accepted.
2. The terminal disclaimer does not comply with 37 CFR 1.321(b) and/or (c) because the application/patent being disclaimed has been improperly identified since the number used to identify the patents being disclaimed (6,368,392 and 5,323,679) is incorrect. The correct numbers are 5,368,392 and 5,823,679.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, a diffraction grating used with individual lasers of the claimed invention, as claimed in claims 84 and 85, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

4. Claims 74-82 and 84-85 are objected to because of the following informalities:

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In claim 74, there is lack of antecedent basis in the specification for each of the multiple lasers directing more than one beam, as stated by the phrase “at least one” beam in lines 7-8. The disclosure states that each of the multiple lasers emits one beam.

In claim 75, there is lack of antecedent basis in the original disclosure for the lasers of the claimed embodiment being moveable and directable (see page 19, paragraph 74; and pages 24-25, paragraphs 90-92).

In claim 78, there is lack of antecedent basis in the specification for one of the lasers of the claimed embodiment directing a beam to the center of the field of view (see page 19, paragraph 74, lines 4-6; pages 24-25, paragraphs 90-92; and page 26, paragraph 94).

In claim 81, “radiometer” should be changed to --radiation-- in line 2.

In claim 84, there is lack of antecedent basis in the specification for using a diffraction grating with at least one of the two lasers of the claimed embodiment (see figures 5 and 14-16; page 19, paragraph 74, lines 4-6; pages 24-25, paragraphs 90-92; and page 26, paragraph 94).

In claim 85, there is lack of antecedent basis in the specification for using a diffraction grating with at least one of the multiple lasers of the claimed embodiment. It is not clear how the laser pattern is created with a diffraction grating on one of the multiple lasers since there will be multiple patterns formed, one by the grating and one by the multiple lasers. Therefore, claims 84 and 85 have not been further treated on the merits (see figures 5 and 14-16; page 19, paragraph 74, lines 4-6; pages 24-25, paragraphs 90-92; and page 26, paragraph 94).

Claims 76, 77, 79, 80, and 82 are objected to for being dependent on an objected base claim. Appropriate correction is required.

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Double Patenting

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 74 and 78-80 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 9 of U.S. Patent No. 5,368,392 [hereinafter the '392 patent] in view of claim 41 of U.S. Patent No. 5,823,679 [hereinafter the '679 patent] and claim 15 of U.S. Patent No. 5,727,880 [hereinafter the '880 patent].

Claim 9 of the '392 patent claims an IR detector (radiometer), which inherently has a field of view, in conjunction with a laser system (laser sighting device) for identifying the measurement area (energy zone) on a target surface from which the detector detects IR radiation (for aiming the detector at the target surface area). The system includes means for emitting more than two simultaneous laser beams against the surface having the measurement area to visibly outline the periphery of the area (which visibly identifies the area and location being measured).

Claim 9 does not claim the IR detector and the laser system being mounted on a common hand-held support; the means for emitting more than two simultaneous laser beams being

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multiple independent spaced apart lasers each directing a visible laser beam onto the surface; and a beam being directed to the center while the others are directed to the edges of the field of view.

Claim 41 of the '679 patent claims a laser beam generating assembly and an IR sensor combined as a hand-held measuring unit. The laser beam generating assembly directs more than two beams, i.e., at least three, toward a zone being measured to display laser spots around the zone from which the radiometer measures the temperature (the field of view), wherein a spot is directed at the center of the zone, and the rest of the spots are directed to outline the zone.

Claim 15 of the '880 patent claims a radiometer with a laser-sighting device for visibly outlining an energy zone to be measured by the radiometer, wherein the laser-sighting device comprises multiple lasers that are spaced apart from each other, i.e., individual lasers, to project at least a pair of beams toward the surface for visibly outlining the energy zone.

Referring to claim 74, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify claim 9 of the '392 patent by claiming that the IR detector and the laser system are mounted on a common hand-held support, as taught by claim 41 of the '679 patent, in order to facilitate aiming the device at the surface being measured.

Furthermore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify claim 9 of the '392 patent by claiming that the means for emitting each of the more than two simultaneous laser beams are multiple independent spaced apart lasers, since claim 15 of the '880 patent teaches that individual lasers are useful means for visibly outlining the area being measured.

Referring to claim 78-80, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify claim 9/41/15 above by claiming that one of the

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beams is directed to the center of the field of view and the other beams are directed to the edge of the field of view, since claim 41 of the '679 patent teaches that it is useful to provide a center beam when outlining the area, i.e., the field of view, being measured.

7. Claim 75 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 9/41/15, as applied to claims 74 and 78-80 above, and further in view of claim 7 of the '880 patent.

Claim 9/41/15 claims an instrument having all of the limitations of claim 75, as stated above in paragraph 6, except for the lasers being moveable and directable.

Claim 7 of the '880 patent claims a radiometer and a laser sighting device for outlining the energy zone on a surface measured by the radiometer. The device projects at least one laser beam towards the surface and includes means for adjusting the position of the beam, i.e. pivoting and directing the beam.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify claim 9/41/15 by claiming that the lasers are pivotable and directable, as taught by claim 7 of the '880 patent, in order to enable a user to adjust the location of the beams, if so desired.

8. Claims 76 and 77 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 9/41/15, as applied to claims 74 and 78-80 above, and further in view of claim 1 of U.S. Patent 6,341,891 [hereinafter the '891 patent].

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Claim 9/41/15 claims an instrument having all of the limitations of claims 76 and 77, as stated above in paragraph 6, except for at least one of the lasers being synchronously pulsed on and off.

Claim 1 of the '891 patent claims a method of measuring temperature by using a radiometer and a laser aiming device for identifying the energy zone on a surface measured by the radiometer. The method projects more than two laser beams towards the surface and includes means for pulsing the beams on and off synchronously.

Referring to claim 76, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify claim 9/41/15 by claiming that the lasers are synchronously pulsed on and off since claim 1 of the '891 patent teaches that it is useful to provide synchronous pulsing beams when marking the area being measured.

9. Claims 81 and 86 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 9 of the '392 patent in view of claim 41 of the '679 patent and claim 15 of the '880 patent.

Claim 9 of the '392 patent claims a radiation detector (radiometer), which inherently has a field of view and a longitudinal axis, in conjunction with a laser sighting system (laser sighting device) for identifying the measurement area on a target surface from which the detector detects radiation. The system includes means for emitting more than two simultaneous laser beams against the surface having the measurement area to visibly outline the periphery of the area.

Claim 9 does not claim the detector and the laser system being mounted on a common hand-held support; the means for emitting more than two simultaneous laser beams having two

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independent spaced apart lasers mounted on opposite sides of the radiometer axis such that a beam from each laser indicate opposite parts of the field of view.

Claim 41 of the '679 patent claims a laser beam generating assembly and an IR sensor combined as a hand-held measuring unit. The laser beam generating assembly directs more than two beams, i.e., at least three, toward a zone being measured to display laser spots around the zone from which the radiometer measures the temperature (the field of view), wherein a spot is directed at the center of the zone, and the rest of the spots are directed to outline the zone.

Claim 15 of the '880 patent claims a radiometer with a laser-sighting device for visibly outlining an energy zone to be measured by the radiometer, wherein the laser-sighting device comprises individual lasers that are spaced apart from each other on either side of an energy zone to project at least a pair of beams toward the surface on either side of the energy zone for visibly outlining the energy zone.

Referring to claims 81 and 86, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify claim 9 of the '392 patent by claiming that the detector and the laser system are mounted on a common hand-held support, as taught by claim 41 of the '679 patent, in order to facilitate aiming the device at the surface being measured.

Furthermore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify claim 9 of the '392 patent by replacing the means for emitting the laser beams with two independent spaced apart lasers mounted on opposite sides of the radiometer's field of view, since claim 15 of the '880 patent teaches that visibly outlining opposing sides of the field of view is a useful way of indicating the area being measured.

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Referring to claim 78-80, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify claim 9/41/15 above by claiming that one of the beams is directed to the center of the field of view and the other beams are directed to the edge of the field of view, since claim 41 of the '679 patent teaches that it is useful to provide a center beam when outlining the area, i.e., the field of view, being measured.

10. Claim 82 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 9/41/15, as applied to claim 81 above, and further in view of claim 1 of the '891 patent.

Claim 9/41/15 claims an instrument having all of the limitations of claim 82, as stated above in paragraph 9, except for the lasers being pulsed.

Claim 1 of the '891 patent claims a method of measuring temperature by using a radiometer and a laser aiming device for identifying the energy zone on a surface measured by the radiometer. The method projects more than two laser beams towards the surface and includes means for pulsing the beams on and off synchronously.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify claim 9/41/15 by claiming that the lasers are pulsed on and off since claim 1 of the '891 patent teaches that it is useful to provide pulsing beams when marking the area being measured.

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11. Claim 74, 79, and 80 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 54 of copending Application No. 10/316197 in view of claim 56 of the copending Application No. 10/316197.

Claim 54 of the copending application claims a radiometer combined with a laser sighting system on a hand-held instrument, where in the radiometer, which inherently has a field of view with an axis, is positioned between more than two separate lasers that are located on opposite sides of the radiometer for projecting more than two laser beams toward a target surface whose temperature is to be measured by the radiometer (the lasers will mark opposite parts of the zone since they are located on opposite sides of the radiometer).

Claim 54 does not claim the beams defining the field of view of the radiometer on the target surface.

Claim 56 of the copending application claims a radiometer, which inherently has a field of view with an axis, combined with a laser sighting system on a hand-held instrument. More than two separate lasers project more than two laser beams toward an energy zone, i.e., field of view, on a target surface from which the temperature is to be measured by the radiometer.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify claim 54 by claiming that the laser beams identify the target area on the surface, since claim 56 of the copending application teaches that it is useful to mark the field of view on the surface when taking temperature measurements.

This is a provisional obviousness-type double patenting rejection.

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12. Claim 75 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 54/56, as applied to claims 74, 79, and 80 above, and further in view of claim 7 of the '880 patent.

Claim 54/56 claims an instrument having all of the limitations of claim 75, as stated above in paragraph 11, except for the lasers being moveable and directable.

Claim 7 of the '880 patent claims a radiometer and a laser sighting device for outlining the energy zone on a surface measured by the radiometer. The device projects at least one laser beam towards the surface and includes means for adjusting the position of the beam, i.e. moving and directing the beam.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify claim 54/56 by claiming that the lasers are moveable and directable, as taught by claim 7 of the '880 patent, in order to enable a user to adjust the location of the beams, if so desired.

This is a provisional obviousness-type double patenting rejection.

13. Claims 76 and 77 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 54/56, as applied to claims 74, 79, and 80 above, and further in view of claim 1 of the '891 patent.

Claim 54/56 claims an instrument having all of the limitations of claims 76 and 77, as stated above in paragraph 11, except for the lasers being synchronously pulsed on and off.

Claim 1 of the '891 patent claims a method of measuring temperature by using a radiometer and a laser aiming device for identifying the energy zone on a surface measured by

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the radiometer. The method projects more than two laser beams towards the surface and includes means for pulsing the beams on and off synchronously.

Referring to claim 76, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify claim 54/56 by claiming that the lasers are synchronously pulsed on and off since claim 1 of the '891 patent teaches that it is useful to provide pulsing beams when marking the area being measured.

This is a provisional obviousness-type double patenting rejection.

14. Claim 78 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 54/56, as applied to claims 74, 79, and 80 above, and further in view of claim 41 of the '679 patent.

Claim 54/56 claims an instrument having all of the limitations of claim 78, as stated above in paragraph 11, except for a beam being directed to the center of the field of view.

Claim 41 of the '679 patent claims a laser beam generating assembly and an IR sensor combined as a hand-held measuring unit. The laser beam generating assembly directs more than two beams, i.e., at least three, toward a zone being measured to display laser spots around the zone from which the radiometer measures the temperature (the field of view). A spot is directed at the center of the zone, and the rest of the spots are directed to outline the zone.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify claim 54/56 by claiming that one of the beams is directed to the center of the field of view since claim 41 of the '679 patent teaches that it is useful to provide a center beam when outlining the area, i.e., the field of view, being measured.

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This is a provisional obviousness-type double patenting rejection.

15. Claims 81 and 86 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 55 of copending Application No. 10/316197.

Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 55 of the copending application claims a radiometer combined with a laser sighting system on a hand-held instrument, where in the radiometer, which inherently has a field of view with an axis, is positioned between two [separate] lasers that are located on opposite sides of the radiometer for projecting a pair of laser beams toward an energy zone, i.e., field of view, on a target surface whose temperature is to be measured by the radiometer to define the energy zone on the surface (the lasers will mark opposite parts of the zone since they are located on opposite sides of the radiometer).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

16. Claim 82 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 55, as applied to claim 81 above, and further in view of claim 1 of the '891 patent.

Claim 55 claims an instrument having all of the limitations of claim 82, as stated above in paragraph 15, except for the lasers being pulsed.

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Claim 1 of the '891 patent claims a method of measuring temperature by using a radiometer and a laser aiming device for identifying the energy zone on a surface measured by the radiometer. The method projects more than two laser beams towards the surface and includes means for pulsing the beams on and off synchronously.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify claim 55 by claiming that the lasers are pulsed on and off since claim 1 of the '891 patent teaches that it is useful to provide pulsing beams when marking the area being measured.

This is a provisional obviousness-type double patenting rejection.

Claim Rejections - 35 USC § 103

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. Claims 74, 75, 79, and 80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent 57-0022521 to Horiba in view of U.S. Patent 4,315,150 to Darringer et al [hereinafter Darringer].

Horiba discloses a system comprising a radiometer (3) mounted between a pair of light sources (5) that are positioned approximately 180° apart and are adapted to project a pair of collimated light beams toward an energy zone on a target surface (2) whose temperature is to be

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measured by the radiometer, thereby providing spaced apart light spots on the surface in order to define/display/identify the energy zone measured on the surface (see figure 1).

Horiba does not disclose the light sources being lasers, at least one laser being pivotable and directable, and the light sources and the radiometer are mounted on a common hand-held support.

Darringer discloses a temperature measurement device comprising an IR detector and a laser light source for projecting a light beam and aiming the device at a target surface. The device has the laser light source since Darringer teaches that a laser is a useful collimated light source for targeting the surface, wherein the laser light source and the radiometer are mounted on a common pistol-grip support to facilitate aiming the device at the surface.

Referring to claim 74, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device disclosed by Horiba by mounting the light sources and the radiometer on a common hand-held support, as taught by Darringer, in order to facilitate aiming the device at the surface.

Also, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device disclosed by Horiba by replacing the light sources with laser light sources, since Darringer teaches that lasers are useful means for providing collimated light beams when indicating the location of a measurement zone on a surface.

Referring to claim 75, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Horiba and Darringer by making the lasers pivotable and directable in order to position them to mark the field of view of radiometers having different sized field of views.

19. Claim 78 is rejected under 35 U.S.C. 103(a) as being unpatentable over Horiba and Darringer, as applied to claims 74, 75, 79, and 80 above, and further in view of German Patent 19528590 to Schmidt et al [hereinafter Schmidt].

Horiba and Darringer disclose a device having all of the limitations of claim 78, as stated above in paragraph 18, except for one of the laser beams being directed to the center of the field of view.

Schmidt discloses a laser thermometer device comprising an IR detector, an optical system, and a sighting arrangement that splits a laser beam to emit more than two beams to produce a pattern on the measurement spot that includes a spot at the center of the measurement spot and a visible laser ring of spaced apart light spots displaced from the center, wherein the display of visible light including the center spot facilitates sighting.

Referring to claim 78, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Horiba and Darringer by providing a laser beam at the center of the field of view, since Schmidt teaches that it is useful to also mark the center spot of a measurement spot to facilitate sighting.

20. Claims 76 and 77 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horiba and Darringer, as applied to claims 74, 75, 79, and 80 above, and further in view of Nettleton.

Horiba and Darringer disclose a device having all of the limitations of claims 76 and 77, as stated above in paragraph 18, except for the lasers being pulsed on and off synchronously.

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Nettleton discloses a range-finding system using a laser to mark a location on a surface. The device pulses a laser on and off and has means for changing the brightness of the laser (the power to a laser must be changed to change the brightness of the laser). Nettleton teaches that it is useful to provide these laser controlling means in order to allow a user to modify the laser beam as desired to better see the laser marking (see column 3, lines 7-20).

Referring to claim 76, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Horiba and Darringer by providing means for pulsing the lasers on and off, as taught by Nettleton, in order to allow a user to obtain a better view of the laser spots on the surface.

Referring to claim 77, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Horiba, Darringer, and Nettleton by making the lasers pulse synchronously in order to continuously maintain at least one beam visible on the surface being measured.

21. Claims 81 and 86 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horiba in view of Darringer.

Horiba discloses a system comprising a radiometer (3) mounted between a pair of light sources (5) that are positioned approximately 180° apart and are adapted to project a pair of collimated light beams toward opposite sides of an energy zone on a target surface (2) whose temperature is to be measured by the radiometer in order to define/display/identify the energy zone measured on the surface (see figure 1).

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Horiba does not disclose the light sources being lasers, and the light sources and the radiometer being mounted on a common hand-held support.

Darringer discloses a temperature measurement device comprising an IR detector and a laser light source for projecting a laser light beam and aiming the device at a target surface. The device has the laser light source since Darringer teaches that a laser is a useful collimated light source for targeting the surface, wherein the laser light source and the radiometer are mounted on a common pistol-grip support to facilitate aiming the device at the surface.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device disclosed by Horiba by mounting the light sources and the radiometer on a common hand-held support, as taught by Darringer, in order to facilitate aiming the device at the surface.

Furthermore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device disclosed by Horiba by replacing the light sources with a laser light sources, since Darringer teaches that lasers are useful means for providing collimated light beams when indicating the location of a measurement zone on a surface.

22. Claim 82 is rejected under 35 U.S.C. 103(a) as being unpatentable over Horiba and Darringer, as applied to claims 81 and 86 above, and further in view of Nettleton.

Horiba and Darringer disclose a device having all of the limitations of claim 82, as stated above in paragraph 21, except for the lasers being pulsed.

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Nettleton discloses a range-finding system using a laser to mark a location on a surface. The device pulses a laser on and off and has means for changing the brightness of the laser (the power to a laser must be changed to change the brightness of the laser). Nettleton teaches that it is useful to provide these laser controlling means in order to allow a user to modify the laser beam as desired to better see the laser marking (see column 3, lines 7-20).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Horiba and Darringer by providing means for pulsing the lasers, as taught by Nettleton, in order to allow a user to obtain a better view of the laser spots on the surface.

Response to Arguments

23. Referring to the objection to claim 75, Applicant's arguments that the multiple lasers (1314) of figures 14-16 are 'directable' because the support (1300) upon which they are mounted can be 'directed' to the target surface are not persuasive since the claim language is misleading because it appears to state that the individual lasers (1314) are directable with respect to the support instead of the support being 'directable' toward the target surface.

Furthermore, Applicant's arguments that the lasers (1314) of figures 14-16 are 'pivot mounted' as shown in the embodiment of figure 11 are not persuasive since the specification does not disclose using a pivoting laser of figure 11 in the embodiments of figures 14-16. If this were the case, then each of the lasers of the embodiment in figures 14-16 would create two separate circular patterns, which is not described in the specification (see paragraph 91, where it states that each laser projects one laser beam, one beam on each side of the radiometer).

24. Referring to the objection to claim 84, Applicant's arguments that there is support in the specification for the lasers of the claimed embodiments (shown in figures 5 and 14-16) (claims 74 and 81) each having a diffraction grating because figure 17 discloses using a diffraction grating with a single laser to produce the plurality of beams (1403a) are not persuasive since the embodiment shown in figure 17 provides the outline of the field of view by using only one laser and a diffractive element to split the one laser beam to outline of the field of view. The embodiments shown in figures 5 and 14-16 are not disclosed as using a diffraction element for each laser. If this were the case, then each of the lasers of the embodiment in figures 5 and 14-16 would create a separate circular pattern, which is not described in the specification (see paragraph 74, where it states that, for figure 5, individual lasers (each laser projecting one laser beam) can be used to outline the energy zone, or that a laser splitting device can be used to split a single laser beam to outline the energy zone; and paragraph 91, for figures 14-16, where it states that each laser projects one laser beam, one beam on each side of the radiometer).

25. Referring to the objection to claim 78, Applicant's arguments that there is support in the specification for the lasers of the claimed embodiment (the embodiments shown in figures 5 and 14-16) since the center beam can be formed using a single laser or an optical splitter, as stated above, are not persuasive since there is no disclosure of the embodiments of figures 5 and 14-16 having a laser or an optical splitter for generating the center beam (see paragraph 94, where it does not state that figures 5 and 14-16 can further have means for projecting a beam axially (to the center)).

26. Applicant's arguments that the rejection of claims 74 and 81 over Horiba in view of Darringer is improper because neither Horiba nor Darringer teach solving Applicant's problem of increasing the safety and brightness of a laser beam are not persuasive since nowhere in the original disclosure and the priority chain does Applicant state or imply that the present invention solves or is for solving this particular problem (of using multiple lasers for increasing the safe brightness of a laser beam in the hand held product). This feature is not disclosed as being an advantage obtained by the present invention, and since the fact that applicant has now apparently recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See Ex parte Obiaya, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

Furthermore, in response to applicant's argument that Horiba and Darringer are nonanalogous art to each other and nonanalogous to the present invention because neither reference teaches solving the problem of increasing the safety and brightness of a laser beam, it has been held that a prior art reference must either be in the field of Applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See In re Oetiker, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, both references are in the field of Applicant's endeavor since they both deal with outlining a measurement area (field of view) of a radiation detector.

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27. Applicant's arguments that the rejection of claim 78 over Schmidt is improper because Applicant claims priority to U.S. Patent 5,823,678 filed on 12/11/1996, which disqualifies the Schmidt reference as prior art since Schmidt has a publication date of 2/6/1997 are not persuasive since claim 78 claims an invention which was first disclosed in U.S. Patent 5,823,679 filed on 4/28/1997. Therefore, since Schmidt was published in Germany before the Applicant's invention, it qualifies as prior art.

Conclusion

28. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

29. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mirellys Jagan whose telephone number is 571-272-2247. The examiner can normally be reached on Monday-Friday from 9AM to 4PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on 571-272-2245. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MJ
August 24, 2004



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